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AUTHOR	Freeberg, Norman E.
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ABSTRACT

This initial study phase deals with the accuracy of the information provided by students on the newly revised Student Descriptive Questionnaire (SDQ). The SDQ, an optional part of the College Board's Admissions Testing Program, is intended to supplement the information base to improve the quality of decisions made by college admissions personnel, guidance counselors, and program planners. The 1985-86 revision of the SDQ was assessed, which features 42 rather than 63 items, a change in item format, and a sharper focus on the academic aspects of student experiences and goals. Focus was on the veracity of student responses for certain limited, verifiable forms of information and the logical or internal consistency of responses between selected item pairs within the questionnaire. The study data were derived from 4,659 college freshmen who entered one of six universities in September of 1986. Missing-data analyses were conducted throughout the analysis of 11 item pairs. Results indicate that key items of student-reported information possess levels of accuracy that indicate the suitability of the new form for its intended purposes as well as its comparability with earlier versions of the SDQ and other student self-report questionnaires. Accuracy was particularly good in terms of grade point average, race/ethnicity and citizenship status, athletic activities, computer/math experience, and activities related to English as a second language. Eleven data tables and a chart of SDQ item contrasts for logical consistency are included. Three data tables and a list of SDQ and Financial Aid Form items are appended. (TJH)

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College Board Report
No. 88-5

Analysis of the Revised Student Descriptive Questionnaire, Phase I

Accuracy of Student-Reported Information

Norman E. Freeberg

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Norman E. Freeberg is a senior research psychologist at Educational Testing Service, Princeton, New Jersey.

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BACKGROUND

As a self-report instrument, the Student Descriptive Questionnaire (SDQ) has, since 1971, enabled college applicants to describe a range of interests, activities, plans, and abilities in both academic and nonacademic areas. This information, obtained as an optional part of the College Board's Admissions Testing Program (ATP) and forwarded to colleges designated by the student, is intended to supplement the information base and thus improve the quality of decisions made by college admissions personnel, guidance counselors, and program planners.

Introduced in the 1985–86 academic year, the first major revision of the SDQ resulted in a shorter version (42 items instead of 63), a change in item format, and a sharper focus on the academic aspects of student experiences and goals. These changes were expected, in some measure, to enhance the utility of the information provided as well as to increase the willingness of students to respond voluntarily to the SDQ.[1] It is incumbent on the designers of the newly revised instrument, however, to assess the credibility and value of the information obtained, in terms of the extent to which it can be shown to be both accurate and predictive of student performance in academic or other areas of achievement. Furthermore, the modified version of a questionnaire that had been used extensively over a period of approximately 15 years offers an opportunity to contrast its value as a measurement tool with other forms of measurement. The results from the new version of the SDQ can be compared with earlier findings from studies of the original questionnaire as well as studies of other, similar self-reports used for college applicants. This report represents an initial study phase dealing exclusively with the accuracy of the information provided in the newly revised SDQ. The report is based on an examination of (1) the veracity of student responses for certain limited, verifiable forms of information (that is, where alternate or external sources of data are available) and (2) the logical or internal consistency of responses between selected item pairs within the questionnaire that lend themselves to comparisons for that purpose.[2]

1. Data available for the academic years 1985 and 1987 indicate that the student nonresponse rate for the revised SDQ has been halved from 10 percent in 1985 to 5 percent in 1987 (College Board 1985a, 1987).

2. A planned second study (Phase II) will use the SDQ student samples and data from this accuracy study to conduct a predictive validity study (longitudinally) by obtaining criterion information on subsequent college academic achievement.

Related Research

Studies of the credibility or accuracy of student self-reporting have covered a range of factually verifiable academic and nonacademic information, although most of those research efforts center largely on the accuracy of student-reported grades. As Baird's (1976) comprehensive review of the literature indicates, there is evidence to suggest that the levels of accuracy in student questionnaire responses are sufficient to justify their use by schools for a variety of decision-making purposes. Thus, in studies dealing with the verification of nonacademic self-reported activities and achievements, Maxey and Ormsby (1971) and Walsh (1967, 1969) covered a variety of behaviors (for example, sports and extracurricular achievements) for which they were able to demonstrate levels of agreement with alternate sources that averaged as high as 90 percent. Those forms of information with more objectively verifiable referents (for example, specific school awards) and those less remote in time were found to produce somewhat greater accuracy or agreement. Basing his study on the original version of the SDQ, Ramist (1980) examined the accuracy of nonacademic information from college students who entered as freshmen in 1979. Using the match between SDQ response and college-reported information (in some instances derived from individual student response data and in others from overall group response by students and corresponding aggregate high school and college data), Ramist assessed the accuracy of responses to various questionnaire items such as ethnic group identification ("95 percent of the students identified as minority responded that way"); type of high school attended as public or private (an average correspondence of 94 percent); and student-indicated field of study (an average correspondence with school records ranging from lows of 80 percent to highs at the mid-90 percent level, depending on the study area). Other checks for the consistency of student intent were possible for degree-level goal, housing preference, and financial aid plans (the last had the lowest correspondence rate, among the SDQ items studied, at only 75 percent).

Analyses of student self-reports to confirm the accuracy of nonacademic variables, however, remain relatively sparse despite strongly expressed interest in broadening the range of student biographical information to encompass multiple dimensions of individual talent beyond academic performance (ACT 1973; Donlon 1984). The major research efforts dealing with self-reported information to be used in education decisions continue to focus, instead, on the accuracy of student-reported grades. Understandably, such information can more readily be verified and there is greater trust in the verification source (that is, transcript-reported grades). In addition, its use in an admissions context is implicitly

more acceptable where concerns for academic performance are often primary and the intent of using self-reported information is, at least in part, to predict college grades. Further, as a form of information believed to be most susceptible to intentional biases induced by pressure to enter college, it has been viewed as a relevant questionnaire "marker variable" indicative of potential distortions in other areas of student-reported information.

The student report of grades, if it is to be accepted as a useful data source (substitutable in some way for transcript-reported grades), must at the outset be shown to possess a high degree of accuracy across a wide range of applicant samples and questionnaire devices and over repeated studies. There seems little doubt that, based on a remarkable level of consistency in overall findings, such standards are readily met for the variable of student self-reported grades, especially among high school applicants to college. At an accuracy level that is almost equivalent to the reliability of the response itself, the product-moment correlations between school- and student-reported grades have been found to be as high as the mid-90s (Dunnette 1952; Davidsen 1963; Nichols and Holland 1963). The median r was .87 for the earlier version of the SDQ form used in the early 1970s (Boldt 1973), and the low was .74 for that same form when the applicants' mean SDQ-reported grades over six subject areas were correlated with their total transcript-reported grades (Armstrong et al. 1976). Notably, in the Armstrong study an r of .82 was found when the mean of SDQ-reported grades in six subject areas was correlated with the mean of the corresponding six transcript-reported grades—a finding more in line with earlier accuracy results. When analyses were made on the basis of matching accuracy, nearly 80 percent of the student-reported grades were exact matches to the transcript-reported grades (Boldt 1973; Maxey and Ormsby 1971), yielding a 95 percent chance that an applicant's reported SDQ grades will be off by less than 0.75 of a grade category (Armstrong et al. 1976). Subgroup differences indicate that females tend to be somewhat more accurate in reporting their grades, as are students with better academic skills (demonstrated in high school grades and admissions tests). Apparent differences between ethnic or racial groups are not consistent.

By whatever reasonable standard of accuracy chosen, it is clear that "students' reports of their grades are about as usable as school-reported grades" (Baird 1976). At least some portion of the relatively modest discrepancies that do occur in the student reports could be attributed to misinterpretations engendered by the way the questionnaire items or the accompanying instructions are presented, as well as to the restricted range of college-bound or college-entry samples of respondents (Armstrong and Jensen 1975; Maxey and Ormsby 1971).

Research on discrepancies in self-reported information from students has depended almost exclusively on verification against *external* sources, which may themselves contain a degree of reporting error that results in misleading conclusions about the accuracy of student reports (see Clausen 1968). But published research dealing with student-response accuracy, or questionnaire utility, from the viewpoint of *internal* (logical) consistency has been limited. The few attempts to deal with that side of the accuracy issue have been concerned with the possibility of fakery and with response biases induced by perceptions of social desirability in the information provided; their occurrence can be demonstrated by illogical or unlikely item response patterns derived from expected item interrelationships (Holland and Richards 1965). As one approach to developing indices of response exaggeration (closely analogous to "lie scales" on personality tests), however, that technique proves difficult to implement for many areas of students' nonacademic accomplishments because of the simplicity and transparency of item content.[3] When response verification from external sources is possible, a suggested alternative approach involves identifying the profile (pattern of variables) that defines individuals or subgroups likely to exaggerate the verifiable forms of achievement, such as school grades (Kirk and Sereda 1969; Donlon 1984).

This study will assess the value of the revised version of the College Board's Student Descriptive Questionnaire in terms of both facets of student-response accuracy reviewed above. This entails, first, the determination of the accuracy levels for key items of the questionnaire (for example, grades, class rank, ethnicity), based on verification from alternate or external sources as well as on comparisons with previous research findings derived from various student self-reports that include the original version of the SDQ. The comparisons can reveal differential accuracy for different types of questionnaire items and for various subgroups of respondents (for example, sex, race, academic performance levels). Second, the value of the questionnaire will be examined in terms of the internal consistency of the responses, by contrasting logical relationships between items requiring similar or overlapping forms of information. Those results can reflect item response reliability and provide clues to item suitability with respect to format, content, and measurement quality.

3. Better control of response distortion is to be found in using items that reflect accomplishments for which the respondent is aware the claims can be verified (Baird 1976).

METHOD

Study Variables

The choice of items for examining the accuracy of student self-reports is limited by the practical availability of confirming information from alternate or external sources. Thus, such data as transcript-reported grades or class rank, available from school records and other readily accessible data bases, are customarily chosen for response accuracy studies. By contrast, SDQ-provided information dealing with such variables as parental education level, student sports participation (in and out of school), and specific physically disabling conditions could prove more difficult and costly to confirm. Given practical constraints on the availability of verifying information, the SDQ items chosen for the external accuracy portion of the study and the confirming or alternate sources of information consist of the following:

1. Academic performance. The high school grade point average (SDQ item 10) has twelve response categories from a high of A+ to a low of E or F. The high school class rank (SDQ item 11) offers a six-category response from the highest tenth to the lowest fifth.[4] The alternate or confirming sources are the school-reported GPA and class rank, which are sent to the colleges.

2. Ethnicity/race. This question (SDQ item 35) comprises eight response categories: American Indian or Alaskan native, Asian, black, Hispanic (three areas of origin), white, and other. The alternate information source is the college-reported ethnic background, derived from the college application, scholarship applications, and so forth.

3. Intent to apply for financial aid. The responses to this question (SDQ item 32) are Yes, No, I don't know. The confirming information source is found in the existence of a completed Financial Aid Form (FAF) application filed by the student with the College Board's College Scholarship Service (CSS).

4. Citizenship status. This question (SDQ item 37) has a three-category response of U.S. citizen, alien, and noncitizen. The alternate information source is the student response to FAF item 7 on citizenship.

5. Combined parental income from preceding year. The question (SDQ item 42) presents eleven response categories ranging from less than $10,000 to more than $70,000, in $5,000 and $10,000 increments. The alternate source for confirmation is the response to FAF item 49h (total parental income).

It should be noted that there are levels of verifiability inherent in the five SDQ forms of information listed above on which accuracy is sought. That is, for grades and class rank, the information reported to the college by the high school can be viewed as sufficiently accurate to serve as the standard against which the veracity of the student-reported information can be judged; mismatches are attributed to student inaccuracy occasioned by any number of possible error-inducing reasons. On the other hand, the alternate or verifying sources for ethnicity, citizenship status, or parental income can be viewed as external standards that have less value, since they can be criticized for depending largely on self-reported information drawn from other self-report forms such as the FAF and the college application. They are therefore of no greater veracity than the SDQ; that is, they represent essentially test-retest reliability. A counterargument favoring the greater accuracy of those alternate sources can be formulated, however, by noting the entirely voluntary nature of all SDQ responses: no direct decision is clearly at stake for the respondent. This is not true for the FAF, most college applications, and scholarship forms. The student and the parent affix signatures attesting to the truth of the statements made in those forms, and there can be legal proscriptions or institutional disciplinary action (dismissal, for example) attached to intentional falsification of information.

The assessment of response accuracy for internal consistency (discussed in the second section under Results) is based entirely on the availability of SDQ items that can logically be juxtaposed for comparison. There was no intent to design such items for incorporation in the revised SDQ to elicit misrepresentation in student responses (a built-in "lie scale"). Therefore, the items available as possible contrasts in response consistency show varying degrees of logical stringency to justify any interpretations regarding the extent of consistency or inconsistency. The chosen items and the logic of the contrasts to justify the consistency determined for a given item pair are summarized in Chart 1.

Whatever the extent of response discrepancy obtained, it should be clear that even for items with strongly definitive rationales, these discrepancies do not necessarily reflect misrepresentation of student experiences and plans. As stated earlier, the discrepancies may, instead, be a result of variations in questionnaire instructions, format, and design—even for items requesting similar information. The pattern of inconsistencies—where they are significant—can also provide clues to the type of information that leads to discrepant response and the specific features that should be considered in attempts to minimize item unreliability.

Sample and Data Acquisition

The study data were derived from samples of freshmen who entered college in September 1986 and, as part of

4. All SDQ and FAF items used for analysis in this study are reproduced in Appendix D.

Chart 1. SDQ Item Contrasts for Logical Consistency

Item	Item content		Item	Item content	Consistency rationale
1	Total number of years taken in each of 4 subject areas (foreign language, mathematics, natural sciences, social sciences/history).	*versus*	2, 3, 4, 5	Number of years taken in specific courses within corresponding subject area.	Total years studied (0 to 4+) in the subject area should match the sum of years studied in specific courses taken within that subject area.
1	Subject area as one in which courses were taken in advanced placement or as honors courses (for each of 4 subject areas).	*versus*	2, 3, 4, 5	Specific courses within subject area taken in advanced placement or as honors course.	An indication by the student of honors course(s) taken in the general subject area should be matched by a response indicating honors for 1 or more of the subject-matter courses within the corresponding area.
6	Average grade for all courses by subject (6 subject areas).	*versus*	10	Cumulative GPA for all academic high school subjects.	There should be a substantial match between a weighted grade average for the 6 subject areas and the cumulative GPA reported by the student.
10	Cumulative GPA for all academic high school subjects.	*versus*	11	Most recent high school class rank.	There should be a reasonably high positive relationship between student-reported GPA and class rank.
12	Grade level in which participated in athletic activity (varsity, intramural, amateur, community sports).	*versus*	13	Specific sports in which participated.	Students who indicate athletic activity should indicate 1 or more sports in which they participated—i.e., there should be no response to first alternative of item 13 ("Have not participated in any sport"). Rationale is weakened by wording "have participated or will participate" in item stem of SDQ 12.
14	Type of institution interested in attending.	*versus*	20	Highest level of education planned beyond high school.	Choice of response 14c (vocational/technical school) would be considered logically inconsistent with choice of 20c, d, or e (bachelor's, master's, or doctoral degree). Similarly, response 14a (4-year college or university) would be inconsistent with response 20a (specialized training or certificate program).
14	Type of institution interested in attending.	*versus*	21	Major area of study that is first choice.	Choice of 14c (vocational/technical school) would be inconsistent with first-choice academic areas of study under major headings of series numbered 170 (biological sciences), 690 (philosophy, religion, and theology), 700 (physical sciences), and 850 (social sciences and history).
20	Highest level of education planned beyond high school.	*versus*	21	Major area of study that is first choice.	Similar to the consistency rationale of 14 vs. 21 (above). The choice of 20a (specialized training or certificate program) would be inconsistent with choices of major areas of study under series 170, 690, 700, and 850.
3f	Years taken or planned to take in computer math.	*versus*	9(e)	Computer coursework or experience in use of computer to solve math problems.	Student indicating no years taken or no plans to take computer math courses in item 3f should not indicate use of a computer to solve math problems in 9e.
7h	High school courses and related activities out of class: English as a second language.	*versus*	36	First language spoken.	Choice of item 7h would be largely inconsistent with choice of 36a (English only).
1–5	Total years studied in general course areas and specific subjects within those areas.	*versus*	29	Subject areas in which student plans to apply for advanced placement, credit by examination, or exemption from courses.	Students who planned to apply for advanced placement in subject areas designated by 29a–k should indicate having taken more coursework in the corresponding subject area of item 1 and in specific courses of items 2, 3, 4, and 5.

the application process, had completed the newly revised 1985–86 version of the Student Descriptive Questionnaire. Six state universities agreed to participate in the study and to provide school-reported grade point average, class rank, and race/ethnicity for the students. When the cooperation of the universities was solicited, a full explanation of the purposes of each study (SDQ accuracy in Phase I and predictive validity in Phase II) was given, including the intention to link the school-provided information with other data bases such as SDQ and FAF files available at Educational Testing Service (ETS). Confidentiality for all information was assured: no results that permitted individual student identification would be reported. State universities were sought for participation because they were considered more likely than most private colleges to maintain large computer-based information systems in continual operational use for a variety of data gathering. State universities also have large freshman classes, a feature that assumes importance when sample attrition must be taken into account in any longitudinal study.

The cooperation of the six universities was obtained largely on the basis of personal contacts by the author with admissions officers or other university administrators. An effort was made to obtain geographic diversity. The following institutions constitute the sample:

University of California, Santa Cruz
University of Maryland, College Park
University of Massachusetts, Amherst
Pennsylvania State University, University Park
Rutgers—The State University of New Jersey, New Brunswick
University of Texas, Austin

Data tapes for the entire entering freshman class were provided by each of the six universities in a specified tape format, which included student identification data to be used for matching those records located in the Admissions Testing Program History Files at ETS. The matching process yielded usable data, both university- and ATP-supplied, for the following samples, by university, of students who responded to the SDQ:

University	*Sample N*
California	813
Maryland	1,721
Massachusetts	1,835
Pennsylvania State	3,748
Rutgers	2,939
Texas	2,692
Total	13,748

The total sample of 13,748 students consisted of 49.7 percent males and 50.3 percent females; 7 percent were identified as Asian by the universities, 7 percent black, 6 percent Hispanic, and 77 percent white (3 percent were classified as "other").[5]

When data were sought from the Financial Aid Form, considerably less information was expected and, in fact, less was available. Social Security number, name, and date of birth were the criteria used for matching the records of those for whom ATP data were available (N = 13,748) to the records of financial aid applicants whose data were in the College Scholarship Service files at ETS. A usable sample (N = 4,659), containing university, ATP, and CSS data, was obtained.

Data Analyses

In analyses of the external accuracy segment of the study, a relatively similar approach was used across those six SDQ items for which there are alternate information sources. Thus, frequency distributions and cross-tabulations between response categories for student reports and external reporting sources (for grade point average, class rank, ethnicity, financial aid application, citizenship status, and parental income) permitted determination of the proportion of matches and mismatches as well as the degree of over- and under-reporting. In addition, product-moment correlations between SDQ-reported information and alternate information sources were obtained for appropriate variables (for example, grades and family income). It was necessary to perform all analyses for the academic variables of grades and class rank with differing subsamples, since not all the universities were able to provide (nor do they necessarily obtain from the high schools) both grade point average and class rank. Thus, three universities were able to provide the high school GPA on a 4-point scale, while the other three could provide the high school class rank. The four additional external-source variables—parental income, ethnicity, financial aid application, and citizenship status—were available for the student samples at all six universities.

Analyses of the internal consistency of SDQ item responses were based on cross-tabulations between 11 pairs of items chosen for comparison on the basis of the consistency/inconsistency rationale outlined in Chart 1. As a general strategy in the analyses of both forms of response accuracy and of the various contrasts of relevant subgroups, most results were examined separately for each of the six samples to determine if any university showed a highly discrepant pattern. Where there were no marked discrepancies, the reported findings were based on the combined student samples from all six universities.

Because data were missing for individual students in each of the samples, missing-data analyses were re-

5. American Indians constituted fewer than one-half of 1 percent of the sample—too few to be used in any of the analyses.

quired throughout. The differing sample sizes are reported in Tables 1 through 11.

RESULTS

The results of assessing the accuracy of student self-reports in the revised Student Descriptive Questionnaire are reported below: first, for each of the six items for which an external or alternate source of information was available and second, for the interitem response comparisons used to determine internal or logical consistency.

Accuracy Based on Alternate (External) Sources

High school grade point average. As a direct indicator of the agreement between student- and school-reported high school cumulative GPA, the product-moment correlation has remained the most stable and comparable index across studies. For the questionnaire used in this study (the revised SDQ of 1985–86), that relationship is an *r* of .79 based on data from three universities and a total sample of 6,039 students who entered college as freshmen in 1986. The *r*'s for the three universities ranged from a low of .76 to a high of .81. This result reflects an accuracy level entirely consistent with previous findings for college applicant samples, for whom the correlations have ranged from the mid-.70s to the mid-.80s, whether for the first SDQ (Baird 1976) or for other student self-report instruments (Nichols 1966). However, since the sample used for the present study differs from previous samples in that it consists of applicants who subsequently entered four-year state universities, it is more homogeneous and undoubtedly has a more restricted range of high school grades than do samples of unselected applicants. The *r* of .79 can therefore be considered an underestimate, or a minimum level, of SDQ-reported accuracy.

When the data for obtaining the *r* of .79 are examined in a categorical breakdown, it is possible to determine the extent to which there is a match between student- and school-reported grades and the extent of over- and underreporting. But for such an examination, the differences between the grade scales provided by the two sources (student and school) must be reconciled. That is, the GPA reported by the schools is on the conventional numerical scale of 0.0 to 4.0—for which corresponding letter grades are customarily defined as A = 4.0, B = 3.0, C = 2.0, D = 1.0, and E or F = 0.5 or below. The student GPA report in the revised 1985–86 SDQ is in terms of letter grades (for example, A+, A, A−) and corresponding numerical values (percentages) to represent each grade category (A+ = 97 to 100; A = 93 to 96; A− = 90 to 92). For comparisons to be made between the school's 0.0 to 4.0 scale and the student's letter grades (so that the matching or mismatching can be identified), it is necessary to define reasonable matching ranges within the two scales that permit such comparisons. For example, what range within the numerical GPA scale is convertible to a letter grade of A−? Is it a match if the school-reported GPA is 3.4 or 3.3, or only if it is 3.5 or better? If the last, what numerical parameters are to be used in defining an A or an A+, and does the student have the same perception of that match when his or her primary information is in the form of the numerical grade? The reasonable, though somewhat arbitrary and overlapping, ranges used to obtain scale matching for the two reporting sources are in Table A.1 in Appendix A.

Given that defined scale comparability, the results for GPA matching, along with over- and underreporting of the high school GPA by the student, are presented in Table 1 for the total sample and for selected subgroup variables of sex, ethnic background, parental education (defined in terms of the parent with the higher educational level), combined parental income, and SAT total score (high defined as above 1000 and low below 1000). For this total applicant sample of 6,039, for whom the school-reported GPA was available, there is a reasonably substantial match (commensurate with the relatively high correlation previously reported): 87 percent of the males and 88 percent of the females report their GPA in close agreement with the school-reported GPA. The overreporting of GPA at 12 percent for the total sample tends to be considerably higher than the 1 percent of underreporting.

A particular characteristic of the underlying distribution that produces this rather extreme 12:1 ratio is the severe sample range restriction at the lower score level. In essence, this represents an artifactual result, since almost none of these 6,039 college freshmen had high school GPAs of less than 1.5, so that there are few opportunities to achieve underreporting at lower GPA levels. When the broader distribution is constructed, for converting student-reported letter grades to an approximation of the 0.0 to 4.0 numerical scale (Appendix B), the size of the ratio of under- and overreport based on GPA score discrepancy will be seen (in the ensuing discussion of grade accuracy) to achieve a more realistic value.

It should be added, as a critical point, that overreporting tended to be much less at higher school-reported grade levels than at lower GPA levels. Thus, of a total of 712 students overreporting, 64 percent were in the GPA range 0.0 to 2.49, whereas 36 percent were in the 2.5 to 4.0 range. This general finding is entirely consistent with earlier results cited in the literature (Baird 1976) as well as with earlier analyses of the SDQ (Armstrong et al. 1976). Any specific differences in proportional values on sample matching and over-

and underreporting (Maxey and Ormsby in 1971 obtained a 78 percent "exact" grade match, with 16 percent overreporting and 6 percent underreporting) are readily attributable to the greater homogeneity of the sample in this report and the reconciliation of the different student and school GPA scales that make exact matching for the two reporting sources infeasible.

For the subgroups it is apparent that no practical differences exist between males and females in the proportion of matching or over- and underreporting of GPA; however, the patterns for race/ethnicity, parental education, parental income, and SAT score level show some significant differences. Thus, as purely descriptive results, it appears that Asians and Hispanics have the highest proportions within the GPA matching category (90 percent and 93 percent, respectively) but the least tendency to overreport. Blacks show the lowest proportion of GPA match (83 percent) and the greatest tendency to overreport (16 percent); whites fall between the extremes in both categories. Parental education and income follow patterns similar to one another in GPA accuracy—as would be expected of these two highly correlated socioeconomic status variables—so that higher levels on either variable provide greater matching and less overreporting. Combined SAT scores fit the expected GPA accuracy results in that there is a sharply higher match (91 percent) for those in the high category than in the low (84 percent).

In an attempt to understand the subgroup self-report accuracy differences, specifically those found among the racial subgroups, a regression analysis was carried out with students' self-reported GPA as the dependent variable and sex, race, and school-reported GPA as explanatory variables. This regression analysis also investigated interactions between race and school-reported GPA and their effect on student-reported GPA. Virtually the entire effect (that is, as variance accounted for in the multiple regression) is attributable to school-reported (actual) GPA; the student with a lower school-reported GPA is far more likely to overreport the GPA regardless of racial subgroup membership. Since blacks constitute the group with the lowest school-reported GPA, their greater overreporting can, logically, be interpreted to be the result of their GPA level. Thus, the simple descriptive result for racial subgroups in grade-reported accuracy would, in this instance, be considered an artifact if the interpretation did not consider the strong explanatory effect of school-reported GPA. Some evidence to illustrate the basis of the findings from the analyses of covariance is shown in Table 2, which presents the mean values of student-reported GPA by racial subgroup at each of three levels of school-reported GPA (high 25 percent, GPA > 3.4; middle 25 percent, GPA 2.6–3.4; low 25 percent, GPA < 2.6). Self-reported GPA is entirely comparable across racial subgroups at any given level of school-reported GPA. In essence, this pattern of means serves to confirm the interpretation of results above: any overreporting,

Table 1. Grade Accuracy: Match, Overreport, and Underreport for Selected Subgroups and Total Sample

	Overreport	*Match*	*Underreport*	*N*
Sex				
Male	12%	87%	1%	3,166
Female	11	88	1	2,873
Race/ethnicity				
Asian	8	90	2	341
Black	16	83	1	452
Hispanic	6	93	1	145
White	12	87	1	4,779
Parental education				
High school or less	15	85	0	1,258
More than HS, < bachelor's	15	84	1	1,356
Bachelor's	11	88	1	1,275
More than bachelor's	8	91	1	1,961
Parental income				
Up to $30,000	14	85	1	2,048
$30,000–$50,000	12	87	1	1,881
$50,000+	8	91	1	1,499
SAT score				
Below 1000	15	84	1	3,055
Above 1000	8	91	1	2,956
Total sample	12	87	1	6,039

whatever the student's GPA level, could not reasonably be attributed to racial group membership.

One other approach often used in examining the accuracy of student-reported grades is to determine the extent of grade-level match along with a given amount of deviation—for example, plus or minus one-half of a grade level or one full grade level. To obtain this matching index, it is necessary to convert the 12 student-reported categories of letter grades to the best uniform approximation on a numerical scale. This is most readily and sensibly accomplished by the following equivalents: A+ or A = 4.0, A− = 3.7, B+ = 3.3, B = 3.0, B− = 2.7, C+ = 2.3, C = 2.0, C− = 1.7, D+ = 1.3, D = 1.0, and E or F = 0.5. These permit the calculation of a distribution of grade-reporting discrepancy for the total sample based on the extent of the over- and underreporting (see Table B.1 in Appendix B for the frequency and cumulative frequency distributions). From the distribution, the relevant summary findings indicate that 83 percent of the students report their grades accurately within plus or minus one-half of a grade level, while 98 percent do so within plus or minus one grade level. Correspondence of these results to earlier findings is evident. Data from the earlier version of the SDQ resulted in an 86 percent chance that student-reported grades would be within plus or minus one-half of a grade level (Armstrong et al. 1976); Maxey and Ormsby (1971), using a different self-report form, found that 98 percent of student-reported grades were accurate within plus or minus one grade level. It should be noted that the amount of GPA score discrepancy, definable as over- and underreport, is more reasonably portrayed in the distribution in the table in Appendix B. With overreporting by 78 percent of the sample (above the zero point on the distribution) and 22 percent underreporting (at the negative end of the discrepancy distribution), an approximate 3.5:1 ratio of overreport to underreport is obtained. This is reasonably closer to prior study results than is the 12:1 ratio obtained previously for the exact-match analysis.

It should also be noted that an obvious, but unavoidable, degree of discrepancy occurs between results obtained from the conversion procedures used for reconciling grade reports from two different scales. That is, the categorical scaling for exact matching, which involves conversion from numerical (school-reported) to letter (SDQ-reported) grades, necessitates some overlap between the defined categories (Appendix A). By contrast, the conversion from letter grades to numerical grades—needed to assess the extent of deviation in grade matching—provides a fairly continuous frequency distribution of scale values (Appendix B). The discrepancies that occur on the basis of the two scaling procedures, however, prove to be relatively minor and do not affect conclusions regarding grade-reporting accuracy.

High school class rank. Accuracy of student self reports of high school academic performance, as measured by class rank, could be determined for three universities in the sample. There were Student Descriptive Questionnaire responses, with the school as the alternate or confirming source, for 6,580 students. Since reporting by schools and students is on a directly comparable scale (unlike GPA reporting), exact matches can be determined on the basis of the six categories for class rank—from the highest tenth to the lowest fifth. As an overall value of SDQ accuracy for class rank, the correlation between student- and school-reported information is .77, which is only slightly below the .79 for grade point average.

Table 3 shows the percentage of matches, overreporting, and underreporting by the total sample and by the same selected subgroups used in Table 1 for the GPA analyses. Of special interest is the extent to which the pattern of results matches that for student-reported GPA. Comparisons of absolute accuracy levels, however, are questionable, first, because of differences in scale-matching precision for class rank and GPA. That is, because there was no possibility of an exact match for school-reported and student-reported GPA, a degree of overlap between the end points of the categories used for the two scales was required for a sensible match to be achieved (Appendix A). However, the exact-match capability for student- and school-reported class rank is more stringent; the end points of each scale category are precisely defined. Second, it could be argued that these high school seniors who are applying to college are more likely to be aware of their GPA than their class rank as the primary index of their overall academic performance. In addition, there can be

Table 2. Mean Student-reported GPA by Level of School-reported GPA for Four Racial Subgroups

School-Reported GPA	Asian	Black	Hispanic	White
High 25% (> 3.4)	3.73	3.77	3.73	3.80
	(*N* = 149)	(*N* = 44)	(*N* = 31)	(*N* = 1,584)
Middle 25% (2.6–3.4)	3.24	3.17	3.11	3.24
	(*N* = 158)	(*N* = 245)	(*N* = 89)	(*N* = 2,262)
Low 25% (< 2.6)	2.66	2.72	2.60	2.76
	(*N* = 34)	(*N* = 165)	(*N* = 25)	(*N* = 1,133)

Table 3. Class Rank Accuracy: Match, Overreport, and Underreport for Selected Subgroups and Total Sample

	Overreport	*Match*	*Underreport*	*N*
Sex				
Male	21%	69%	10%	3,125
Female	16	67	17	3,455
Race/ethnicity				
Asian	14	66	20	496
Black	23	57	20	359
Hispanic	19	60	21	491
White	18	70	12	4,829
Parental education				
High school or less	17	63	19	1,048
More than HS, < bachelor's	19	67	15	1,424
Bachelor's	18	70	12	1,592
More than bachelor's	19	69	12	2,347
Parental income				
Up to $30,000	19	65	16	1,867
$30,000–$50,000	16	70	14	2,045
$50,000	20	69	11	1,971
SAT score				
Below 1000	21	59	20	4,746
Above 1000	16	74	9	3,817
Total sample	18	68	14	6,580

Note: Because of rounding, totals may not equal 100%.

greater difficulty in understanding the SDQ item as it defines the student's standing in relation to other members of the class. Because of such scaling differences and the student's interpretation of the item, it is not surprising that the exact-match accuracy level of the total sample for class rank is only 68 percent—considerably below the 87 percent accuracy level of GPA. Class rank is more nearly balanced than GPA in overreporting (18 percent) and underreporting (14 percent). It should be noted that the greater proportion of matches was achieved among those of higher class rank, as was true for GPA. In general, the pattern of differences in self-report accuracy for subgroups is similar to that for GPA. That is, there is little difference between males and females, but higher parental education levels tend to be associated with greater matching accuracy, as do higher parental income levels. The sharpest distinction again is found between high- and low-scoring students on the SAT; high scorers (SAT above 1,000) are considerably more accurate in reporting class rank and are less apt to overreport.

The primary deviation from the GPA pattern is in the ethnic group contrasts. Whites and Asians are distinctly more accurate as shown by their proportion of matches between self- and school-reported information. Hispanics (who were most accurate for GPA) rank at about the same accuracy level as do blacks; both groups have lower percentages of class rank matches and higher overreport. But here again, as with the GPA, descriptive differences for racial groups are negated by covariate analyses. With the same covariates as in the GPA analyses, the results indicate that the racial differences are overwhelmingly attributable to the fact that those students who tend to overreport their class rank have the lower school-reported rank—regardless of race.

Race/ethnicity. The accuracy of race/ethnicity as reported by students and colleges is summarized in Table 4. From these results it is apparent that the levels of SDQ accuracy for this item are relatively high—better than 90 percent across four ethnic subgroups. Asians, blacks, and whites report at virtually the same accuracy levels (97 percent to 98 percent), while the only moderate decrease is for Hispanics (Mexican Americans, Puerto Ricans, and other Hispanics), with an agreement level of 92 percent. The primary source of the inaccuracy for the Hispanic group is attributable to the mismatch between the colleges' identification of students as Hispanic and those students' identification of themselves as white in their SDQ responses. The relatively stable level of accuracy in student group identification seems well established when these results are compared with earlier findings for the SDQ (Ramist 1980). Those findings indicated matching levels of 96

Table 4. Accuracy of Racial Self-report for Four Subgroups

Race (college-defined)	*Accuracy*	*Largest category of inaccuracy*	*N*
Asian	97%	2% ("other")	952
Black	97	2 ("other")	938
Hispanic	92	6 ("white")	777
White	98	1 ("other")	10,433

percent by ethnicity, based on college identification for a minority/majority student classification, and 99 percent for a black/nonblack dichotomy.

Parental income. As one of two SDQ items that require students to provide information about the status of persons other than themselves (the other item is parental education), parental income may be considered somewhat difficult for the respondent to estimate accurately. Most SDQ items depend on personal intentions, activities, and perceptions. A primary issue here is whether the student is able to meet the request for income information with overall accuracy that makes the item worth using in group data compilation or for individual education decisions. If significant inaccuracies are found, it is of value to examine any misinterpretation due to item content or format. Also in line with the purposes of this study, patterns of inaccurate responses by subgroup should be compared with the findings on other SDQ items for which external information sources are available.

From a correlational viewpoint, it can be stated that students provide estimates of their parents' combined income with substantial correspondence to the parents' income levels reported on the Financial Aid Form (FAF) of the College Scholarship Service (CSS). The overall correlation is .78 between those two information sources for the total student sample. The correlation holds at similar levels across the universities sampled as well as in subgroup contrasts by sex, ethnicity, parental education, and total SAT score (r's range from .72 to .79).

However, when examined from the perspective of categorical matching for differing income levels across the 11 response categories (income levels) of this SDQ item, the precision of student income estimates warrants a more cautious conclusion—or at least a better appreciation of the locus and nature of the response inaccuracies. Some explanation is required of why the parental income ranges reported by the student are, in part, restricted in their prospects for precision. First, the "total" income report in the FAF (see item 49h in Appendix D) is a value that contains some limited adjustments to gross income in the form of Keogh and IRA contributions. Second, the SDQ (see item 42 in Appendix D) requests that the student estimate combined parental income "before taxes last year," which would generally be the year preceding the year for which the parents provide the total income estimate in the Parents' Information Section of the FAF. Such constraints would suggest that although the student has some general appreciation of parental income level (as evidenced by the r of .78), the degree of precision in that estimate could broadly and systematically be limited.

The effects of those constraints are evident on a category-by-category match between the SDQ income ranges and the corresponding FAF ranges (see Table C.1 in Appendix C). Thus, the proportion of exact matches for any category is found to be relatively small (from a low of 23 percent for the $60,000 to $70,000 salary range to a high of 48 percent for the $70,000 or more category). But at each of the 11 income levels in the SDQ (except for the $10,000 to $15,000 level), the next highest percentage of responses occurs immediately adjacent in the next lower income range and tends to be nearly as large as—in some cases larger than—the exact match. The result is reasonable with respect to the wording of the SDQ item and thus provides the basis for broadening the agreement, or match, to encompass both the exact-match income range and the adjacent lower range.

Student accuracy levels, based on this approach to the agreement criterion, are thus more rationally represented in Table 5, column 4, with the exact match by category shown parenthetically in column 3. From these values, the level of accuracy for student agreement with the FAF is seen to range from a high of 67 percent in the $50,000 to $60,000 category to a low of 55 percent in the $10,000 to $15,000 category (barring the two extreme categories of up to $10,000 and $70,000 or more, with their inherent range restriction on under- and overreporting). Of special note in Table 5 is a consistent tendency by students to overreport parental income at the lower levels (up to $30,000 to $35,000, where the over- and underreporting becomes evenly divided) and to *underreport* at all levels above $35,000. In the subgroup comparisons, agreement among females on parental income was similar to that among males; over- and underreporting were also similar for both sexes. Ethnic groups were reasonably alike, although Asians showed slightly less agreement. In addition, accuracy in reporting income was found across subgroups by parental education level and by student SAT scores.

Intent to apply for financial aid. The student's plan to apply for financial aid can only be verified in terms of whether or not that intent was carried out *after* the student responded to the SDQ. As such, it represents a qualitatively different form of response accuracy than that obtained from items dependent upon externally

Table 5. Parental Income: Exact Match, Agreement, Underreport, and Overreport for Total Sample

	Student-reported income				
FAF reported income	*Under-report*	*Exact match*	*Agreement (exact match + one category below)*	*Over-report*	*N*
Up to $10,000	0%	(38)%	38%	62%	393
$10,000–$15,000	0	(41)	55	45	296
$15,000–$20,000	5	(41)	61	34	386
$20,000–$25,000	11	(32)	62	28	387
$25,000–$30,000	14	(32)	60	26	419
$30,000–$35,000	21	(26)	59	20	445
$35,000–$40,000	27	(29)	60	13	436
$40,000–$50,000	25	(38)	64	11	830
$50,000–$60,000	22	(30)	67	10	491
$60,000–$70,000	35	(23)	57	8	287
$70,000 or more	30	(48)	70	0	199
Total sample	17	(34)	60	23	4,569

verifiable information known to the student at the time of the response (e.g., grades, class rank).

The fulfillment of plans to apply for financial aid, as verified by the subsequent filing of the FAF with the College Scholarship Service, is seen in Table 6 for subgroups and the total student sample. Only 51 percent of those who planned to apply for financial aid carried out their intent.[6] However, a very small percentage of those who did not plan to file (4 percent) changed their minds and filed the FAF. Ramist (1980) had similarly found (for a sample of 16 colleges) that among the SDQ items examined, financial aid plans had the lowest "correspondence rate" with external information sources; the reason was that "students with plans to apply do not follow through." However, his correspondence rate of 75 percent reflects a higher fulfillment of intent than does the 51 percent in Table 6. The students in this sample, as was stated earlier, subsequently enrolled as freshmen in state universities, whereas the Ramist sample was larger and included private universities.

Subgroup figures in Table 6 show some notable differences. Females are somewhat more likely to carry out their intent to apply than are males. Blacks are considerably more likely to carry out their plans than is any other ethnic group (66 percent), followed by Hispanics (60 percent) and Asians (56 percent); whites prove less likely than do minority students to fulfill their expectation of seeking financial aid (46 percent). Also to be noted are the reversals by those *not* intending to apply. Black and Hispanic students represent the largest proportions of that category with 21 percent and 10 percent, respectively. When this response is considered by parents' education, the differences, though not striking, indicate that students whose parents have more education are less likely to follow through. The largest reversal in original plans not to file is evident for

Table 6. Fulfillment of Plans to Apply for Financial Aid, by Selected Subgroups and Total Sample

	Plan to apply and do apply	*Do not plan to apply but do apply*
Sex		
Male	47%	4%
Female	53	5
Race		
Asian	56	8
Black	66	21
Hispanic	60	10
White	46	4
Parental education		
High school or less	52	10
More than HS, < bachelor's	52	6
Bachelor's	49	10
More than bachelor's	47	4
Parental income		
Up to $30,000	57	22
$30,000–$50,000	50	9
$50,000+	34	3
SAT score		
Below 1000	48	6
Above 1000	51	3
Total sample	50	4

Note: $N = 5,910$, excluding blanks and don't-know responses.

6. Some small percentage of available financial aid at state universities may be sought without filing the FAF, and there may be some misinterpretation of the term *financial aid*. For example, intent to apply for a supplemental or a parent loan—both available without filing the FAF—may be viewed by the student as an intent to apply for financial aid.

those students whose parents have less education. More dramatic as an effect of these socioeconomic indicators is the sharp drop in fulfilling the plan to apply for financial aid, which is seen with higher family income. That subgroup also evidences an even sharper decrease in actually filing the FAF when there had been no plan to do so, according to the SDQ response. The pattern of these results is entirely commensurate with the overall customary relationships expected among minority status, parental education, and parental income variables.

One of the more puzzling SDQ findings can be seen in the listing below, which shows the proportion of the sample at each of the six state universities who planned to apply for financial aid and then carried out their intentions. The extreme variation across the six universities for the match between the students' intent to file and their actually doing so varies from a high of about 75 percent for three universities (precisely matching Ramist's [1980] results obtained with the 1979 version of the SDQ) to an inordinate low of 24 percent and 26 percent at two institutions. No feasible explanation for such a dramatic difference is apparent, unless there are institutional policies resulting in rules or inducements to file for financial aid at some of the universities (whatever the student's original intent) that are not characteristic of the others.

Students, by University, Who Carried out Intent to Apply for Financial Aid[7]

24%
76
58
76
26
73

Citizenship status. The citizenship item response, for which there is an alternate source in the FAF, has a nearly perfect accuracy level of 99 percent when the SDQ report of United States citizenship is matched against the same information from the FAF. The result is virtually the same for all relevant subgroup comparisons.

Accuracy Based on Logical (Internal) Consistency

The results of the 11 interitem comparisons that constitute the internal consistency assessment of the Student Descriptive Questionnaire are presented below for each comparison, in the order in which they appear in Chart 1.

7. Results for individual state universities are presented in random order.

Total years taken in a subject area versus sum of the specific courses. Table 7 shows the extent to which the student responses to the item on the years of coursework taken, by subject area, match the sum of the individual courses taken in that same subject area and the extent to which the total years were greater than or less than the sum of individual courses reported.

The highest level of consistency or agreement between the two item responses is for foreign and classical languages, with 88 percent of the respondents achieving an exact consistency match. Natural sciences reaches a level of 74 percent, while relatively low levels of consistency are found for social sciences and history (61 percent) and for mathematics (56 percent). The students' overall tendency is clearly to report more years of *specific* courses taken within a subject area than they perceive as the *total* number of years taken in that same subject area. Some questions can be raised regarding the basis of the result: first, whether the interpretation of those courses that fall within a given subject area is not much broader, from the student viewpoint, than is covered by the specific courses listed in the SDQ; second, whether there may not be problems in defining the years taken in a subject area as a gross estimate that must then be further refined when specific half-year course estimates are given, with a resulting tendency to induce cumulative error across the set of specific courses. For example, a problem could arise—given the minimum half-year course estimate possible on the SDQ response sheet—when the student indicates one year of a subject area studied but attempts to account for three or more subject elements covered within the course (which may be true for the social sciences and history area, wherein a one-year course could have covered European, United States, and World History). To show that these specific elements of the overall subject have been studied, the student might mark three half-year options under the item listing specific courses

Table 7. Internal Consistency between Total Years Taken and Sum of Years of Individual Courses Taken, in Each of Four Subject Areas

	Total greater than sum	*Total = sum*	*Total less than sum*
Foreign and classical languages	2% (N = 253)	88% (N = 11,976)	10% (N = 1,362)
Mathematics	8% (N = 1,058)	56% (N = 7,646)	36% (N = 4,935)
Natural sciences	11% (N = 1,511)	74% (N = 10,105)	15% (N = 2,019)
Social sciences/history	11% (N = 1,454)	61% (N = 8,386)	28% (N = 3,801)

taken. Under any circumstance, the acceptance and use of this student-presented information at face value for two of the course areas (mathematics and social sciences/history) would be questionable without a better understanding of the student's interpretation of these alternate ways of reporting the amount of coursework taken.

Indication of honors in a general subject area versus corresponding indication of honors in one or more courses within that area. A fairly high degree of consistency is found for these adjacent items of the SDQ form (item 1 versus items 2 to 5). The two-by-two cross tabulations in Table 8, for each of four subject areas, give evidence that more than 90 percent of respondents who do not report honors in a given subject area are consistent in not reporting honors for any course within the corresponding area; the proportions range from 92 percent for natural sciences to 98 percent for foreign and classical languages. Those who did report honors in one of the four subject areas were consistent in reporting honors for at least one specific course within the corresponding subject area. The range was from 86 percent in mathematics to 91 percent in foreign and classical languages, which was below the range for no-honors reports.

Average grade for all courses in six subject areas versus cumulative grade point average. An average of the student-reported grades in the six subject areas of SDQ item 6 (weighted by the number of years taken in each subject) was contrasted with the student's reported cumulative GPA. When they were matched within ± 0.5 of a grade point, the result reflects a substantial degree of internal response consistency at 94 percent, while the minimal extent of underreporting and overreporting is similar for each type of error (3 percent), as shown below.

Underreport	*Match*	*Overreport*
3%	94%	3%
(N = 411)	(N = 1,200)	(N = 427)

The expectation is that either form of student-provided grade information—by individual courses in a weighted average or by cumulative GPA—would yield similar results in SDQ accuracy against transcript-reported grades. Additional support for that finding could be drawn from the comparability of grade accuracy results in both this study, which used the student-reported cumulative GPA, and the Armstrong and Jensen (1975) study of the earlier SDQ version, which used the average GPA for six reported subject areas.

Relationship between GPA and class rank. When the correlation is computed between the 12 responses for GPA (SDQ item 10) and the 6 responses for class rank (item 11), a moderately high r of .71 is obtained. That relationship for the two measures of academic performance, while substantial, is not evidence that one could be substituted for the other as a student-reported grade index. However, the question of which of the two will prove to be a more predictively valid self-report measure (for example, against a criterion of college academic performance) remains to be determined.

Table 8. Cross-Tabulation of Honors Taken in a Subject Area versus Indication of Honors in One or More Subject-Matter Courses within That Area

Foreign and classical languages

	SDQ 2 No honors	SDQ 2 Honors	N
SDQ 1 No honors	98%	2%	10,734
SDQ 1 Honors	9%	91%	2,571

Mathematics

	SDQ 3 No honors	SDQ 3 Honors	N
SDQ 1 No honors	94%	6%	8,372
SDQ 1 Honors	14%	86%	4,851

Natural sciences

	SDQ 4 No honors	SDQ 4 Honors	N
SDQ 1 No honors	92%	8%	8,523
SDQ 1 Honors	11%	89%	4,662

Social sciences/history

	SDQ 5 No honors	SDQ 5 Honors	N
SDQ 1 No honors	95%	5%	9,412
SDQ 1 Honors	13%	87%	3,935

Athletic participation versus specific sports participation. These items can be seen in the cross-tabulation of Table 9 to produce an excellent degree of consistency for those 9,005 students who responded that they took part in athletics (SDQ item 12). That is, 98 percent of those who answered that they had engaged in, or intended to engage in, athletics named at least one sport in which they had participated (SDQ item 13). Among those 4,529 students who failed to indicate they participated in athletics at any given grade level, there were 48 per-

Table 9. Consistency between Indicated Athletic Participation and Specific Sports Participation

	SDQ 13 No sports	SDQ 13 Sports	*N*
SDQ 12 No athletics	52%	48%	4,472
SDQ 12 Athletics	2%	98%	9,005

cent who nevertheless specified a sport in which they had participated. Some clue to this apparent discrepancy is found in the specific sports chosen by the no-athletics group. These fall into the category of largely hobby-related sports such as skiing, swimming, and sailing. Very simply, the grade-designated athletic participation of item 12 is taken by the student to mean organized school-related or school-sponsored sports (despite the allowance for amateur level and community sports in the responses). The list of specific sports in item 13 is thought by the student to refer to both in- and out-of-school sports.

Type of institution student is interested in attending versus highest level of education planned versus major area of study that is first choice. Any meaningful opportunity to define consistency in the responses to the various combinations of these three SDQ items proposed for contrast turned out to be nil. This is because of the minute proportion of students in the sample who chose the vocational/technical school or even the two-year community or junior college option of SDQ item 14 (only 1 percent of the total sample in both categories). Thus, only a smattering of assumed response inconsistencies could be expected—such as individuals who chose a four-year college program also indicating (inconsistently) that the highest level of education they planned was specialized training or a certificate program, or a two-year associate of arts degree. For contrasts proposed on the type of institution, or the degree level intended versus the major academic area of study, virtually all areas of study chosen are logically consistent with the intention, that is, almost the entire sample intended to enter colleges or universities offering bachelor's degrees and higher. Such a 99 percent response consistency would be expected in a college applicant sample that eventually went on to be admitted to a state university. It may be questionable, however, whether greater inconsistencies are likely to be found in the responses of an unselected ATP applicant sample. Nor is it clear that the 15 percent of the sample who chose "undecided" for their planned level of education would change the overall result if they had made a choice.

Take (or plan to take) computer math versus computer coursework involving use of computer to solve math problems. Despite the relatively weak consistency rationale for this contrast (as previously defined), 66 percent of those who took computer math also responded that they used the computer to solve math problems (Table 10). In line with that moderate level of consistency, those who did not choose the response 9e in computer coursework or experience (item 9) were consistent in that they did not indicate having taken a computer math course; 76 percent were consistent in that respect in their response to SDQ item 3f.

Activities involving English as a second language versus first language spoken. This contrast produces a reasonably high degree of response consistency in that 97 percent of those students whose first language was English do not tend to be involved in an activity dealing with English as a second language (ESL). Of those who indicated involvement in ESL activities under English coursework or experience (SDQ item 7), 72 percent first learned to speak a language other than English (item 36c), as would be expected.

Total years of coursework in a subject area versus plan to apply for advanced placement in corresponding subjects. This series of consistency contrasts was carried out over the nine subject areas amenable to such analyses from the available SDQ items. They are summarized, by subject area, in the set of two-by-two cross-tabulations of Table 11 (pages 17–18).

The extent of consistency between years of coursework taken in a subject area and students' plans to apply or not apply for advanced placement appears to depend, in part, on the particular subject under consideration and on the differential distribution of the years of coursework taken in that subject. Thus, it can be seen that for all nine subject areas, those students with no plans to apply for advanced placement have taken less coursework in the area. This result holds when the dichotomy for English, mathematics, and social sciences/history is set at four years or less versus four years or more—since most students in this sample report at least four years of coursework in those three

Table 10. Consistency between Indicated Computer Math Course(s) Taken and Use of Computer to Solve Math Problems

	SDQ 9e No computer math problems	SDQ 9e Computer math problems	*N*
SDQ 3f No computer math courses	76%	24%	4,731
SDQ 3f Computer math courses	34%	66%	5,311

subject areas and thus produce a homogeneous, range-restricted distribution clustered at the high end.[8]

As a result of the sample's severe range restriction in these four subject areas (English, mathematics, social sciences, and physics), the response consistency for students who do plan to apply for advanced placement appears decreased. Thus, only five of the nine subject areas show the appropriate trend clearly, wherein the students with more years of coursework were the ones who planned to apply for advanced placement. And it is for those four subjects, with the marked homogeneity of the sample, that the effect of the distortion on the cross-tabulations is most pronounced. In essence, since almost all members of the sample take a similar amount of coursework in those four subject areas, that variable cannot distinguish adequately between those who plan to apply for advanced placement in college and those who do not plan to do so. For the other five subject areas, which have a more equal split or have more variation in the distribution of courses taken, plans to apply for advanced placement do distinguish logically between the members of the sample.

CONCLUSIONS

In this initial phase of the study, aimed at examining the value of the revised (1985–86) Student Descriptive Questionnaire, key items of student-reported information have been shown to possess levels of accuracy that indicate the suitability of the new form for its intended purposes, as well as its comparability with earlier versions of the SDQ and other student self-report questionnaires.

On the basis of verifying data from alternate sources, it was demonstrated that the accuracy of the most widely researched student-reported information (academic performance as GPA) approached an r of .80 between student-reported and school-reported high school grades. This result, along with the grade-matching accuracy of 87 percent, makes these findings for the revised SDQ entirely consonant with those of an extensive research literature. Subgroup contrasts indicate, as in earlier studies, that there is little practical difference in students' grade accuracy by sex or race. Where descriptive differences were found for the latter variable, they were washed out, and accuracy was equally applicable across racial subgroups—given control by covariance adjustment for the variable of transcript-reported GPA. This is because students who overreport grades (the major direction of inaccuracy) consistently have lower GPAs, and since some racial subgroups possess significantly lower GPA scores, their grade-reporting accuracy would appear artifactually lower. Subgroup contrasts, by levels of parental income and education and by student admissions test scores, indicated grade-report accuracy results consistent with the conventional positive interrelationships of that set of variables and their relationships to student GPA. Students from families with higher parental education and income and students with higher admissions test scores tended to be more accurate in their self-reports.

In student-reported race/ethnicity and citizenship status, the excellent accuracy levels (overall about 97 percent) are consonant with variables for which the item query-and-response format is clear and for which little doubt should exist about the respondent's status. In reporting their estimate of total annual parental income, however, students showed some understandably diminished accuracy, based, at least partly, on built-in incompatibilities between the SDQ item wording and the verifying source (the Financial Aid Form). When these were compensated for, a respectable 60 percent agreement accuracy could be determined for the total student sample, although a systematic response bias remains whereby students from lower-income families tend to overreport parental income and those from higher-income families tend to underreport (possibly analogous, for the same underlying reasons, to the overreporting bias found in grade-report inaccuracy).

Because the intent to apply for financial aid reflects a conceptually different form of response accuracy, based on an estimate of future actions rather than a concurrently verifiable condition or state of knowledge, the 51 percent correspondence between the student plan to apply and the subsequent filing of the FAF is the poorest accuracy level of any of the externally verifiable SDQ items studied. As in a previous analysis of SDQ responses, this mismatch is found to be produced by the failure of students to follow up on their intentions. For reasons now indefinable from the data, the result for this item is, unlike the other SDQ items studied, highly variable across the six state universities that constituted the sample (ranging from 24 percent to 76 percent accuracy). Determining whether this variability can be attributed to differing policies and practices of the institutions or to different characteristics of their entering freshman populations would require additional information not available in the present data set.

A form of evidence complementary to the external (verifiable) checks of the SDQ responses—and one that further enhances confidence in the value of student-reported information—was sought in the examination of response consistency between appropriately (logically) comparable item pairs. The results indicated reasonably consistent patterns. Where inconsistencies

8. The result for physics is also based on an unusual dichotomy for the variable of years of coursework because of sample skewness, but in the opposite direction; that is, almost all students take less than two years of physics in high school.

were found, their bases were explainable and in some instances tended to provide insights into prospects for improving accuracy through modification of item instructions, format, wording, or all of these. Thus, this sample of ATP applicants who entered state universities as freshmen proved to be consistent in their questionnaire responses when they reported honors courses for two different SDQ items; that is, results tallied accurately when honors courses taken in an overall subject area were contrasted and when that information was provided for specific courses taken within the corresponding subject area. However, when a similar form of consistency is examined—for total years of coursework taken in various subject areas and for specified courses within the subject area—superior consistency is found for certain subjects (languages and natural sciences) in comparison with others (social sciences/history and mathematics). Such student misinterpretations, possibly in course definitions, would seem to warrant detailed study of ways to improve item instructions or presentation.

Respectable levels of consistency were found when student-reported information in logically related item pairs was contrasted (1) for positive indications of athletic activity that was consistent with specific sports designated for personal participation; (2) for claims of having had computer math experience and actually using the computer to solve math problems; (3) for taking part in activities involving English as a second language and, logically, indicating that a language other than English was the first language learned at home; (4) for the relationship between the student's reports of GPA and class rank (r = .71); and (5) for the grade matching (94 percent) between the student-reported cumulative GPA and the average of the student grade report from courses in six separate subject areas.

Severe range restriction was found in the distribution of responses on the type of institution students planned to attend, since almost all (99 percent) of this relatively homogeneous sample had planned, as ATP applicants, to go on to a four-year college. This result effectively negated the opportunity to obtain any meaningful inconsistencies in the contrast of that item with other SDQ items dealing with the highest level of education planned (virtually all students chose bachelor's degrees or higher) or the major area of academic study planned (all are consistent with the choice of such high-level degrees). The existence of inconsistencies, to any extent, would have required that a certain proportion of students in this sample had expressed an intent in their SDQ responses to enter vocational/technical schools and two-year colleges, or had planned for certificate programs or associate degrees in arts and sciences.

When student plans to seek advanced placement in college in a given subject area were contrasted with the amount of high school coursework in the corresponding subject area, reasonable consistency was found for a group of courses (languages, biology, chemistry, computer science, and arts and music); those who planned to apply for advanced placement tended, appropriately, to have had more coursework in the subject area, while those who did not plan to apply had less coursework. But the consistencies become unclear for those courses in which there are severe range restrictions—that is, where most students had taken four or more years of high school courses (mathematics, English, social sciences) or very few years (physics).

Taken together, the results for these SDQ items—whether based on verifiable external information or logical internal consistency—provide a picture of a self-report questionnaire that should be applicable to a number of educational purposes for which student biographical information has been used in the past (compiling descriptive demographic information, planning institutional programs, gathering information for counseling students). The prospects are that the student-reported information from this questionnaire would also yield significant predictive validities against college academic performance that are comparable to findings from the wide array of previous research literature. But this remains to be determined, specifically for the items of the revised SDQ, as the subject of study efforts to follow.

Table 11. Consistency between Coursework Taken in Subject Area and Plan to Apply for Advanced Placement in Corresponding Subject Area

Arts and music

	Less than two years coursework	Two years or more coursework	*N*
No plan to apply	65%	35%	11,952
Plan to apply	31%	69%	607

English

	Less than four years coursework	Four years or more coursework	*N*
No plan to apply	89%	11%	9,080
Plan to apply	88%	12%	3,623

Foreign and classical languages

	Less than three years coursework	Three years or more coursework	*N*
No plan to apply	75%	25%	10,665
Plan to apply	43%	57%	2,110

Mathematics

	Less than four years coursework	Four years or more coursework	*N*
No plan to apply	82%	18%	9,398
Plan to apply	59%	41%	3,284

Social sciences/history

	Less than four years coursework	Four years or more coursework	*N*
No plan to apply	93%	7%	11,126
Plan to apply	85%	15%	1,677

Computer science

	Less than one year coursework	One year or more coursework	*N*
No plan to apply	93%	7%	9,084
Plan to apply	18%	82%	625

(continued on page 18)

Table 11. Consistency between Coursework Taken in Subject Area and Plan to Apply for Advanced Placement in Corresponding Subject Area Con't.

Biology

	Less than two years coursework	Two years or more coursework	*N*
No plan to apply	88%	12%	11,547
Plan to apply	35%	65%	1,081

Chemistry

	Less than two years coursework	Two years or more coursework	*N*
No plan to apply	93%	7%	11,499
Plan to apply	46%	54%	1,081

Physics

	Less than two years coursework	Two years or more coursework	*N*
No plan to apply	97%	3%	10,233
Plan to apply	66%	34%	821

APPENDIX A

Table A.1. Conversion of Numerical Grade (School Report) to Letter Grade (Student Report)

	Student report		
School report	*Student overreport*	*Match*	*Student underreport*
GPA 3.50+	—	A+, A, A−, B+	B or below
GPA 2.50–3.49	A+, A	A−, B+, B, B−, C+	C or below
GPA 1.50–2.49	B or above	B−, C+, C, C−, D+	D or below
GPA 1.49 or less	C or above	C−, D+, D, E, F	—

APPENDIX B

Table B.1. Discrepancy between School-reported and Student-reported GPA: Frequency Distribution of Over- and Underreport on Numerical Grade Score Intervals (total sample, N = 6,039)

Size of discrepancy (positive-student overreport)

Score intervals	*F*	*Pct*	*CF*	*C-Pct*
1.900 – 2.000	1	0.0	6,039	100.0
1.600 – 1.700	4	0.1	6,038	100.0
1.500 – 1.600	1	0.0	6,034	99.9
1.400 – 1.500	5	0.1	6,033	99.9
1.300 – 1.400	16	0.3	6,028	99.8
1.200 – 1.300	23	0.4	6,012	99.6
1.100 – 1.200	35	0.6	5,989	99.2
1.000 – 1.100	85	1.4	5,954	98.6
0.900 – 1.000	91	1.5	5,869	97.2
0.800 – 0.900	139	2.3	5,778	95.7
0.700 – 0.800	196	3.2	5,639	93.4
0.600 – 0.700	314	5.2	5,443	90.1
0.500 – 0.600	402	6.7	5,129	84.9
0.400 – 0.500	462	7.7	4,727	78.3
0.300 – 0.400	684	11.3	4,265	70.6
0.200 – 0.300	703	11.6	3,581	59.3
0.100 – 0.200	744	12.3	2,878	47.7
0.000 – 0.100	783	13.0	2,134	35.3
-0.100 – 0.000	454	7.5	1,351	22.4
-0.200 – -0.100	362	6.0	897	14.9
-0.300 – -0.200	220	3.6	535	8.9
-0.400 – -0.300	143	2.4	315	5.2
-0.500 – -0.400	84	1.4	172	2.8
-0.600 – -0.500	43	0.7	88	1.5
-0.700 – -0.600	21	0.3	45	0.7
-0.800 – -0.700	17	0.3	24	0.4
-0.900 – -0.800	3	0.0	7	0.1
-1.100 – -1.000	2	0.0	4	0.1
-1.400 – -1.300	1	0.0	2	0.0
-1.500 – -1.400	1	0.0	1	0.0

Cases processed	=	6,039
Minimum value	=	−1.4900
Maximum value	=	2.0000
Sum of scores	=	1,421.7324
Sum sqd. scores	=	1,092.1726
Mean	=	0.2354
Stnd. dev. (N)	=	0.3542
Stnd. dev. ($N-1$)	=	0.3542

APPENDIX C

Table C.1. Accuracy of Parental Income Report for SDQ and FAF on Exact Match, by Income Categories, for Total Sample

Parents' Income from FAF (Rows) by Parents' Income from SDQ (Columns), All Schools

		SDQ : up to $10K	*SDQ $10–15K*	*SDQ $15–20K*	*SDQ $20–25K*	*SDQ $25–30K*	*SDQ $30–35K*	*SDQ $35–40K*	*SDQ $40–45K*	*SDQ $50–60K*	*SDQ $60–70K*	*SDQ $70K or more*	*SDQ total*
FAF: up to $10K	*N*	149	112	45	31	12	14	9	8	6	2	5	393
	Row%	37.9%	28.5%	11.5%	7.9%	3.1%	3.6%	2.3%	2.0%	1.5%	0.5%	1.3%	100.0%
	Col %	66.5%	29.7%	9.6%	6.6%	2.3%	2.7%	1.6%	1.2%	1.6%	1.1%	2.9%	8.6%
FAF: $10–15K	*N*	41	121	59	30	16	11	9	3	2	2	2	296
	Row%	13.9	40.9	19.9	10.1	5.4	3.7	3.0	1.0	0.7	0.7	0.7	100.0
	Col%	18.3	32.1	12.5	6.3	3.1	2.1	1.6	0.4	0.5	1.1	1.1	6.5
FAF: $15–20K	*N*	19	78	159	51	30	12	12	9	6	3	7	386
	Row%	4.9	20.2	41.2	13.2	7.8	3.1	3.1	2.3	1.6	0.8	1.8	100.0
	Col%	8.5	20.7	33.8	10.8	5.8	2.3	2.2	1.3	1.6	1.6	4.0	8.4
FAF: $20–25K	*N*	6	35	114	124	43	20	21	14	4	0	6	387
	Row%	1.6	9.0	29.5	32.0	11.1	5.2	5.4	3.6	1.0	0.0	1.6	100.0
	Col%	2.7	9.3	24.2	26.2	8.3	3.9	3.8	2.0	1.0	0.0	3.4	8.5
FAF: $25–30K	*N*	1	11	46	118	133	52	19	16	9	6	8	419
	Row%	0.2	2.6	11.0	28.2	31.7	12.4	4.5	3.8	2.1	1.4	1.9	100.0
	Col%	0.4	2.9	9.8	24.9	25.5	10.2	3.4	2.3	2.4	3.2	4.6	9.2
FAF: $30–35K	*N*	2	8	19	64	146	116	45	24	15	5	1	445
	Row%	0.4	1.8	4.3	14.4	32.8	26.1	10.1	5.4	3.4	1.1	0.2	100.0
	Col%	0.9	2.1	4.0	13.5	28.0	22.7	8.1	3.5	3.9	2.7	0.6	9.7
FAF: $35–40K	*N*	1	4	8	30	76	132	128	44	7	3	3	436
	Row%	0.2	0.9	1.8	6.9	17.4	30.3	29.4	10.1	1.6	0.7	0.7	100.0
	Col%	0.4	1.1	1.7	6.3	14.6	25.8	23.1	6.3	1.8	1.6	1.7	9.5
FAF: $40–50K	*N*	2	6	13	19	54	113	219	315	58	21	10	830
	Row%	0.2	0.7	1.6	2.3	6.5	13.6	26.4	38.0	7.0	2.5	1.2	100.0
	Col%	0.9	1.6	2.8	4.0	10.4	22.1	39.5	45.5	15.2	11.2	5.7	18.2
FAF: $50–60K	*N*	1	1	2	4	9	29	64	185	146	37	13	491
	Row%	0.2	0.2	0.4	0.8	1.8	5.9	13.0	37.7	29.7	7.5	2.6	100.0
	Col%	0.4	0.3	0.4	0.8	1.7	5.7	11.6	26.7	38.2	19.7	7.5	10.7
FAF: $60–70K	*N*	2	1	4	1	1	10	25	57	97	65	24	287
	Row%	0.7	0.3	1.4	0.3	0.3	3.5	8.7	19.9	33.8	22.6	8.4	100.0
	Col%	0.9	0.3	0.8	0.2	0.2	2.0	4.5	8.2	25.4	34.6	13.8	6.3
FAF: $70K or more	*N*	0	0	2	1	1	3	3	18	32	44	95	199
	Row%	0.0	0.0	1.0	0.5	0.5	1.5	1.5	9.0	16.1	22.1	47.7	100.0
	Col%	0.0	0.0	0.4	0.2	0.2	0.6	0.5	2.6	8.4	23.4	54.6	4.4
Total	*N*	224	377	471	473	521	512	554	693	382	188	174	4569
	Row%	4.9	8.3	10.3	10.4	11.4	11.2	12.1	15.2	8.4	4.1	3.8	100.0
	Col%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: Correlation of SDQ categories × FAF income converted to categories = 0.7771

For further explanation of the boxed adjoining cells, see page 10.

APPENDIX D. SDQ AND FAF ITEMS USED IN REPORT ANALYSES

SDQ Items

1. Indicate the total number of years of high school courses (in grades 9 through 12) you have taken or plan to take in each of the subjects listed below. If you have not taken any course in a subject and do not plan to take one in high school, fill in the oval in the "None" column. If you repeat a course, count it only once. If one (or more) of the courses is an advanced placement, accelerated, or honors course, fill in the oval in the "Honors" column.

   Arts and Music (for example, art, music, art history, dance, theater)
   English (for example, composition, grammar, or literature)
   Foreign and Classical Languages
   Mathematics
   Natural Sciences (for example, biology, chemistry, or physics)
   Social Sciences and History (for example, history, government, or geography)

In questions 2-5, using the same guidelines as in question 1, **indicate the total number of years you have taken or plan to take the *specific courses* listed.**

2. **Foreign and Classical Languages**

   French
   German
   Greek
   Hebrew
   Italian
   Latin
   Russian
   Spanish
   Other language courses

3. **Mathematics**

   Algebra
   Geometry
   Trigonometry
   Precalculus
   Calculus
   Computer Math
   Other mathematics courses

4. **Natural Sciences**

   Biology
   Chemistry
   Geology or related Earth or Space Sciences
   Physics
   Other science courses

5. **Social Sciences and History**

   U.S. History
   U.S. Government or Civics
   European History
   World History or Cultures
   Ancient History
   Anthropology
   Economics
   Geography
   Psychology
   Sociology
   Other social science or history courses

6. **Please enter the *average* grade for all courses** you have already taken in each subject.

   If only pass-fail grades were assigned and you received a passing grade, fill in the oval in the "Pass" column. Do not fill in a grade oval if you fill in a "Pass" oval.

   - A or excellent (usually 90-100)
   - B or good (usually 80-89)
   - C or fair (usually 70-79)
   - D or passing (usually 60-69)
   - E or F or failing (usually 59 or below)
   - Pass

   Arts and Music
   English
   Foreign and Classical Languages
   Mathematics
   Natural Sciences
   Social Sciences and History

For questions 7 through 9, **please provide information about the content of some of your high school courses and related activities out of class.** (You may mark more than one in each subject area.)

7. **English** course work or experience

   a. American Literature
   b. British Literature
   c. Composition
   d. Grammar
   e. Literature of a country other than the United States or Britain
   f. Literature of different historical periods
   g. Speaking and listening skills
   h. English as a second language

9. **Computer** course work or experience

   a. I have had no course work or experience in this area.
   b. Computer literacy, awareness, or appreciation
   c. Data processing
   d. Computer programming (BASIC, COBOL, FORTRAN, PASCAL, etc.)
   e. Use of the computer to solve math problems
   f. Use of the computer to solve problems in the social sciences
   g. Use of the computer to solve problems in the natural sciences
   h. Use of the computer in English courses
   i. Word processing (use of the computer in writing letters or preparing papers)

10. **Please indicate your cumulative grade point average** for all academic subjects in high school.

    - A+ (97-100)
    - A (93-96)
    - A− (90-92)
    - B+ (87-89)
    - B (83-86)
    - B− (80-82)
    - C+ (77-79)
    - C (73-76)
    - C− (70-72)
    - D+ (67-69)
    - D (65-66)
    - E or F (below 65)

11. **What is your most recent high school class rank?** (For example, if you are 15th in a class of 100, you are in the second tenth.) If you do not know your rank, please check with your high school guidance counselor. If rank is not used in your school, give your best estimate.

    a. Highest tenth } in the
    b. Second tenth } top fifth
    c. Second fifth
    d. Middle fifth
    e. Fourth fifth
    f. Lowest fifth

12. In addition to regular class work, many students are involved in activities that reflect their abilities and interests. These include community service and involvement, extracurricular and out-of-school activities, and individual endeavors. **Indicate in which grades you participated or will participate in the activities listed below.**

    If you held a major office or position of leadership in an activity (for example, class president, varsity team captain, officer of a statewide organization), fill in the oval in the "Officer" column. Remember to include activities

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and accomplishments that are not school sponsored as well as your extracurricular activities.

If you have received an award or special recognition for achievement in an activity (for example, school prize for music or writing, varsity letter, regional science fair prize, state orchestra), fill in the oval in the column marked "Award."

- Academic honor society
- Art activity
- Athletics: Intramural, junior varsity, or community sports
- Athletics: Varsity or amateur-level sports
- Career-oriented activity (for example, Future Teachers of America, Future Farmers of America, Future Homemakers)

13 **Please indicate the sports in which you have participated.** (You may mark up to six sports.)

- I have not participated in any sports

a Archery
b Badminton
c Baseball
d Basketball
e Bowling
f Boxing
g Cross-country
h Diving
i Fencing
j Field hockey
k Football
l Golf
m Gymnastics
n Handball
o Horseback riding
p Ice hockey
q Lacrosse
r Paddleball
s Racquetball
t Riflery
u Rowing (crew)
v Rugby
w Sailing
x Skiing
y Skin diving
z Soccer
0 Softball
1 Squash
2 Swimming
3 Table tennis
4 Tennis
5 Track and field
6 Volleyball
7 Water polo
8 Wrestling
9 Other

Questions 14 through 19 ask about the kind of college or university you are interested in attending during your first year in college. There are no "right" or "wrong" answers, and you may mark as many preferences as you like. If you do not have an idea about the kind of college or university you'd like to attend, fill in the last oval, "Undecided."

14 **What type(s) of institution are you interested in attending?** (You may mark more than one.)

a A four-year college or university
b A two-year community or junior college
c A vocational/technical school
d Undecided

15 **Which of the following are you considering?** (You may mark more than one.)

a A public university, state college, or community college
b A private university, college, or junior college (not religiously affiliated)
c A private, religiously affiliated university, college, or junior college
d Undecided

20 **What is the highest level of education you plan to complete beyond high school?** (Mark only one.)

a Specialized training or certificate program
b Two-year associate of arts or sciences degree (such as AA, AAS, or AS)
c Bachelor's degree (such as BA or BS)
d Master's degree (such as MA, MBA, or MS)
e Doctoral or related degree (such as PhD, JD, MD, DVM)
f Other
g Undecided

A list of both general (bold type) and specific majors or areas of study in college is on page 15. Related areas or majors are indicated in parentheses. Although you do not need to know what your "major" in college will be, we would like you to mark the subject area or areas that interest you. In questions 21, 23, 24, 25, and 26 you may indicate the specific or general areas of study that you are considering. *If you have none*, please fill in number 999 (Undecided).

21. **Indicate the major or area of study that is your first choice.** Write in the code number and fill in the appropriate oval under each digit.

29 Some colleges allow well-prepared students to skip required introductory courses and take advanced course work instead. This exemption is sometimes based upon the results of tests such as Advanced Placement Examinations, Achievement Tests, and tests of the College-Level Examination Program. Some colleges give their own placement or "credit by examination" tests. **Mark each subject area in which you plan to apply for advanced placement, credit by examination, or exemption from courses.**

a Art
b Biology
c Chemistry
d Computer Science
e English
f Foreign Languages
g Humanities
h Mathematics
i Music
j Physics
k Social Studies
l I don't plan to apply for exemption from these courses.

32 **Do you plan to apply for financial aid at any college?**

- Yes
- No
- I don't know

35. **How do you describe yourself?** (Mark only one.)

a. American Indian or Alaskan native
b. Asian, Asian American, or Pacific Islander
c. Black or African American

Hispanic background:
d. Mexican American or Chicano
e. Puerto Rican
f. Latin American, South American, Central American, or other Hispanic

g. White
h. Other

36. **What language did you learn to speak first?**

a. English only
b. English and another language
c. Another language

37. **What is your citizenship status?**

a. U.S. citizen
b. Alien, refugee, or permanent resident of the U.S.
c. Citizen of another country

41. **Indicate the highest level of education completed by your father** (or male guardian) **and your mother** (or female guardian) by filling in the appropriate oval in each column. (Mark only one.)

a. Grade school
b. Some high school
c. High school diploma or equivalent
d. Business or trade school
e. Some college
f. Associate or two-year degree
g. Bachelor's or four-year degree
h. Some graduate or professional school
i. Graduate or professional degree

42. **What was the approximate combined income of your parents before taxes last year?** Include taxable and nontaxable income from all sources.

a. Less than $10,000
b. About $10,000 to $15,000
c. About $15,000 to $20,000
d. About $20,000 to $25,000
e. About $25,000 to $30,000
f. About $30,000 to $35,000
g. About $35,000 to $40,000
h. About $40,000 to $50,000
i. About $50,000 to $60,000
j. About $60,000 to $70,000
k. More than $70,000

FAF Items

7. **The student is** 1 ☐ a U.S. citizen
2 ☐ an eligible noncitizen (See instructions.)
3 ☐ neither of the above (See instructions.)

49. **Breakdown of income in 26**	**1985**	**Estimated 1986**
a. Wages, salaries, tips—father or stepfather	$ .00	$ .00
b. Wages, salaries, tips—mother or stepmother	$ .00	$ .00
c. Interest income	$ .00	$ .00
d. Dividends after IRS exclusion	$ .00	$ .00
e. Net income (or loss) from business, farm, rents, royalties, partnerships, estates, trusts, etc. If a loss, enter the amount in (parentheses) (**Explain in 66.**)	$ .00	$ .00
f. Other taxable income such as alimony received, capital gains (or losses), pensions, annuities, etc. (**Explain in 66.**)	$ .00	$ .00
g. Adjustments to income, including IRA/Keogh payments and working couple deduction (Give only IRS allowable amounts. See worksheet in the instructions for **26.** **Explain in 66.**)	$ .00	$ .00
h. **Total** (Add **49a-49f**, minus **49g**.) This is the answer to **26.**	$ .00	$ .00

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